Construction Advisory

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Removing Transverse Joint Assembly Shipping Wires for Concrete Pavements

Some contractors have inquired whether it is acceptable or not to leave the shipping wires intact on transverse ioint assemblies for Portland cement concrete pavements. Accompanying the request, the contractor may present empirical calculations along with technical literature intended to support the claim that leaving the shipping wires in does not affect pavement performance.

The belief expressed by the contractor is that by not removing the shipping wires, there is a better chance that the transverse joint assembly will maintain alignment under the loading imposed by the plastic concrete during paving.

In the 1980s, the department conducted investigations into the potential causes of early-age transverse cracking on selected pavements. The findings concluded that whenever early-age transverse cracking appeared at locations just outside the boundaries of the transverse joint assembly, the shipping wires were not removed. Similar pavement sections within each project that did not experience early-age transverse cracking, were shown to have had their shipping wires removed.

Although the empirical calculations currently being presented by contractors in support of leaving the shipping

wires intact appear to justify the request, to date, only three state departments of transportation have removed the requirement for cutting the shipping wires.

Therefore, the department maintains support for its standard specification requirements to remove the shipping wires for transverse joint assemblies. Section 602.03.F.3.a of the Standard Specifications for Construction reflects the department's current requirements.

Please share this information with consultants and local agencies within your area.